



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of : Jerry Kellgren
Serial No. : 10/074,488
Filed on : 2/12/ 2002
For : METHOD AND APPARATUS FOR
OXYGENATING GROUND WATER
Examiner :
Group Art : 1723

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INFORMATION DISCLOSURE

Assistant Commissioner for
Patents
Washington, DC 20231

Sir:

If any additional charges or fees must be paid in connection with this communication, they may be paid out of our deposit account No. 50-0783.

Pennington, U.S. Patent 5,524,598 issued June 20, 1995 discloses a method of oxygenating ground water by pumping gas into the water and causing the oxygenated water to circulate upwards in the well. The upper end of the well has a porous section and the lower end of the well has a porous section, with the mid-section of the well being non-porous.

Abdul, U.S. Patent 5,690,173 issued November 25, 1997 discloses a method for oxygenating ground water using a gas-permeable water-impermeable member through which the oxygenating agent passes with the member being positioned between an injection well and a recovery well.

Carter, US Patent 5,874,001 issued February 23, 1999 discloses a method of oxygenating ground water including an injection well, an oxygen storage tank, and a compressor for releasing oxygen into an injection well at about one PSI and at a rate at approximately seven cubic feet per hour.

Taylor, U.S. Patent 5,904,851 issued May 18, 1999 discloses a method for oxygenating water including an enriching chamber into which oxygen is admitted through an inlet into the chamber after which enriched water is recovered therefrom.

Suthersan, U.S. Patent 6,102,623 issued August 15, 2000 discloses a device for oxygenating ground water by providing packing balls in a well and bubbling air through the packing balls.

Vigneri, U.S. Patent 5,286,141 issued February 15, 1994 discloses a method of removing hydrocarbon contaminants by injecting hydrogen peroxide into a well and monitoring the pH level of water in the well.

Lin, U.S. Patent 6,083,377 issued July 4, 2000 discloses a method of removing nitrogenous compounds by providing electrodes in the water with a voltage across the electrodes set to the Eh voltage at which nitrogen gas is thermodynamically favored.

Thornton, U.S. Patent 6,197,187 issued March 6, 2001 discloses a method of treating contaminants by providing electrodes in a salt-containing solution to form ions.

Lubin, U.S. Patent 5,614,078 issued March 25, 1997 discloses a method of removing nitrates from water in which electrodes are positioned in the water with the potential across the electrodes being such that nitrates are reduced to gaseous products without producing noxious side products.



Gibson, U.S. Patent 5,957,196 issued September 28, 1999 discloses a bioremediation of organic contaminants using a silicon rubber gas-permeable tube to inject pressurized oxygen into a bladder of underground water.

Bernhardt, U.S. Patent 5,095,975 issued March 17, 1992 discloses a method of removing impurities from ground water by bubbling water through the water such that the air will combine with contaminants.

Mansuy, U.S. Patent 5,190,108 issued March 2, 1993 discloses a method of preventing microorganisms from fouling a well by injecting anoxic gas, such as nitrogen, into the well to deprive bacteria and the like of oxygen.

Hough, U.S. Patent 6,110,353 issued August 29, 2000 discloses a device for oxygenating water which uses laminar flow to improve the oxygenation.

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Respectfully submitted,

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PTO/SB92 (08-00)

Approved for use through 10/31/2002. OMB 0881-0031

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